

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for April, 1895, is based on reports from 3,254 stations occupied by regular and voluntary observers. These reports are classified as follows: 148 reports from Weather Bureau stations; 35 reports from U. S. Army post surgeons; 2,390 monthly reports from State Weather Service and voluntary observers; 30 reports from Canadian stations; 96 reports through the Southern Pacific Railway Company; 624 marine reports through the cooperation of the Hydrographic Office, Navy Department, and New York Herald Weather Service; monthly reports from 30 U. S.

Life-Saving stations; monthly reports from local services established in all States and Territories; and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by the Division of Records and Meteorological Data, in charge of Mr. A. J. Henry, chief of that division.

CHARACTERISTICS OF THE WEATHER FOR APRIL, 1895.

The month was characterized by the infrequency and slow movement of storm areas. The temperature was generally in excess over the interior of the country and the pressure was slightly deficient. Dry winds and duststorms prevailed fre-

quently from Texas to Manitoba. The rainfall was in excess throughout the Atlantic States, but generally deficient in the interior. Remarkable river floods occurred on the 9th and 10th in the middle and south Atlantic States, and on the 15th and 16th throughout New England.

ATMOSPHERIC PRESSURE (*in inches and hundredths*).

By Prof. FRANK H. BIGELOW.

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers not reduced to standard gravity and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart II. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

During the current month the highest mean pressures were on the coasts of Massachusetts, Rhode Island, and Connecticut, the southern coast of Florida, the upper Lake region, and the coasts of southern Washington, Oregon, and California. The extreme highest were: Eureka, 30.12; San Francisco, 30.11; White River, 30.10; Sault Ste. Marie, 30.07. The lowest mean pressure was in Assiniboia, 29.89 at Battleford; at Yuma the mean was 29.90.

As compared with the normal for April the mean pressure for the current month was slightly deficient in the interior. The maximum deficit was 0.10 at Concordia. Pressure was in excess on the Pacific coast, plateau region, and especially the east Atlantic coast. The maximum excess was 0.16 at Sydney.

As compared with the preceding month of March, the pressures reduced to sea level show a rise on the Atlantic and Pacific coasts; the maximum rise was 0.30 at St. Johns, N. F., and the maximum fall 0.14 at Sioux City, North Platte, and Wichita.

The systematic periodic diurnal variations of pressure are shown by the hourly means given in Table V.

HIGH AND LOW AREAS.

Instead of describing all the high areas in succession by themselves, and then all the low areas by themselves, it seems more natural to consider the interactions between the highs and the lows, in their eastward drift, as counterparts of a system of surface circulation, and to discuss them simultaneously. Accordingly a section will be devoted to the tracks of the high areas, another will be given to the low areas, and a third will contain such descriptive matter as appears to be properly suggested by the special features characteristic of the April weather conditions.

HIGH AREAS.

An inspection of the tracks of the centers of the high areas for April exhibits, in many respects, a very instructive view of the tendency to move in certain well-defined paths, that is really characteristic of all anticyclonic circulation in the United States at all seasons of the year. Originating on the middle Pacific coast, or in the extreme northwestern territory, the highs may reach the Atlantic Ocean by two distinct circuits, (1) over the Lake region and the St. Lawrence Valley, and (2) over the Rocky Mountain slope, the Gulf States, and the Atlantic coast. The former may be called the "northern" circuit and the latter the "southern" circuit.